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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Eiju KATSURAGI et al.

Serial No.: 10/649,733

Filed: August 28, 2003

For: DISK ARRAY UNIT AND ITS METHOD FOR WRITING DATA

**PETITION TO MAKE SPECIAL  
UNDER 37 CFR 1.102(d) and MPEP. §708.02, VIII**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

December 29, 2004

Sir:

**1. Petition**

Applicants hereby petition to make this application **Special**, in accordance with 37 CFR §1.102(d) and MPEP 708.02, VIII. The present invention is a new application filed in the United States Patent and Trademark Office on August 28, 2003 and as such has not received any examination by the Examiner.

**2. Claims**

Applicants hereby represent that all the claims in the present application are directed to a single invention. If upon examination it is determined that all the claims presented are not directed to a single invention, Applicants will make an election without traverse as a prerequisite to the granting of special status.

### **3. Search**

Applicants hereby submit that a pre-examination search has been made by a professional searcher, (a copy of which is attached), in the following classes and subclasses:

<u>Class</u>	<u>Subclass</u>
369	13.35
714	48, 758, 762, 763

### **4. Copy of References**

A listing of all references found by the professional searcher is provided on a Form PTO-1449 and copies of the references and the Form PTO-1449 are submitted as part of an Information Disclosure Statement (IDS) filed on even date.

### **5. Detailed Discussion of the References and Distinctions Between the References and the Claims**

Below is a discussion of the references uncovered by the search and cited in the IDS filed on even date that appear to be most closely related to the subject matter encompassed by the claims of the present application, and which discussion particularly points out how Applicants' claimed subject matter is distinguishable over those references. All other references uncovered by the search and cited in the IDS filed on even date are **not** treated in detail herein.

**a. Detailed Discussion of the References**

**U.S. Patent No. 5,557,767 (Sukegawa)**, assigned to Kabushiki Kaisha Toshiba, is entitled Disk Control System using Identification Codes for Retrieving Related Data for Storage in a Read Ahead Cache. Disclosed is a controller 112 that generates the same writing code and writes the writing code with ID information of each sector in a hard disk drive unit 113. In the hard disk drive unit 113, sector data to be read ahead in the read ahead cache 201 is determined by a writing code (identification code) value written on each sector on the hard disk drive unit 113. This writing code is generated by the controller 112 whenever a write request is issued. Writing codes having the same value are generated when a series of write requests are issued for sectors in the order of ascending addresses. Each sector on the hard disk drive unit 113 is constituted by an ID area where ID information such as a sector address is written and a data area where the data is written. The writing code is written in a free portion of the ID area (see figure 2; abstract; and column 5, lines 33-40, and 60-64).

**U.S. Patent No. 5,719,885 (Ofer et al.)**, assigned to EMC Corporation, is entitled Storage Reliability Method and Apparatus. Disclosed is a plurality of sectors that form a track on a disk drive 24. When storing data that must be written to one or more of the disk drives 24, a channel director 12 updates an ID table stored in the cache memory. A separate ID table is associated with each data track and the ID record must be written to disk by the disk director 22 each time it is modified (see figures 1; and column 4, lines 3-8).

**U.S. Patent No. 6,629,199 B1 (Vishlitzky et al.)**, assigned to EMC Corporation, is entitled Digital Data Storage System Including Directory for Efficiently Providing Formatting Information for Stored Records and Utilization of a Check Value for Verifying that a Record is from a Particular Storage Location. Disclosed is a track descriptor 36(c)(t) that includes a header 40 and a sector CRC section 41. The sector CRC section 41 contains record-specific CRC information for the respective records in the track. Each CRC value as stored in the sector CRC section 41 can be on the order of one byte. If a host adapter 24(n) updates data for a sector in a track, it will update the CRC value for the track as stored in the sector CRC section 41 to conform to the appropriate CRC value for the updated data in the sector (see column 9, lines 34-36; and column 10, lines 48-50, and 64-67).

**Japanese Patent No. 8212711 (Kojima et al.)**, assigned to Toshiba Corp., is entitled Data Forming Method, Data Reproducing Method, Data Forming and Reproducing Method, Data Forming Device, Data Reproducing Device and Disk. Disclosed is information data that is divided into n pieces, which are data packets having a constant length. Intrinsic row identification codes 0 to (n-1) corresponding to the divided orders are added to specified positions, such as the head, of respective information data. A first error correcting code po of each data packet is formed, and the first code series by adding each data packet is formed. The recording sector packets continuously connect the rows and are recorded in a disk or transmitted (see figure 1; and abstract).

**b. Distinctions Between the References and the Claims**

The present invention as recited in the claims filed are not taught or suggested by any of the above noted references whether taken individually or in combination with each other or in combination with any of the other references now of record.

The present invention as recited in the claims is directed to writing data to a recording medium that includes writing in each sector of a series of sectors of the recording medium in which data is to be written caused by a single data write request location information which is information indicating a location of the sector in the series of sectors and common information which varies every time data writing to the series of sectors occurs and is information set relating to the series of sectors, and validation by reading out the location information and the common information written in each continuous sector of the recording medium and validates data based on the read out location information and common information.

The above described features of the present invention, particularly writing in each sector of a series of sectors of the recording medium in which data is to be written caused by a single data write request location information which is information indicating a location of the sector in the series of sectors and common information which varies every time data writing to the series of sectors occurs and is information set relating to the series of sectors, or validation means which reads out the location information and the common information written in each continuous sector of the recording medium and validates data based on the read out location information and common information, are not taught or suggested by any of the references of record whether taken individually or in combination with each other.

**6. Fee (37 C.F.R. 1.17(i))**

The fee required by 37 C.F.R. § 1.17(i) is to be paid by:

☒ the Credit Card Payment Form (attached) for \$130.00.

☐ charging Account \_\_\_\_\_ the sum of \$130.00.

A duplicate of this petition is attached.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Mattingly, Stanger & Malur, Deposit Account No. 50-1417 (500.43088x00).

Respectfully submitted,

MATTINGLY, STANGER & MALUR, P.C.



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FDB/sdb  
Enclosures